

Notice of Allowability

Application No.

09/455,408

Examiner

Herng-der Day

Applicant(s)

SARDA, SYLVAIN

Art Unit

2128

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Amendment dated 6/10/04 and 8/17/04.
2. ☒ The allowed claim(s) is/are 7, 9 and 12.
3. ☒ The drawings filed on 24 December 2003 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

1. This communication is in response to Applicant's Amendment to Office Action dated March 10, 2004, mailed June 10, 2004, and Applicant's Supplemental Amendment mailed August 17, 2004.

1-1. Claims 7 and 9 have been amended. Claims 8, 10-11, and 13-14 have been cancelled. Claims 7, 9, and 12 are pending.

1-2. Claims 7, 9, and 12 have been examined and allowed.

Interview Summary

2. While reviewing Applicant's Amendment dated June 10, 2004, the Examiner located potential problems under 35 U.S.C. 112, second paragraph, with claim 10 and the newly added claims 13 and 14 because the claimed subject matter is similar to claims 9 and 12.

On July 15, 2004, the Examiner telephoned Mr. Donald E. Stout (Reg. No.: 26,422) to discuss these problems. In response to the telephone conversation, Applicant submitted the Supplemental Amendment on August 17, 2004, canceling claims 10 and 13-14.

Oath/Declaration

3. The "Declaration of Bernard Bourbiaux Pursuant to 37 CFR §1.132" dated July 28, 2004, and mailed August 17, 2004, does not include the clause regarding "willful false statements ..." required by 37 CFR 1.68. Mr. Donald E. Stout is thanked for pointing out the last paragraph in the Declaration of Bernard Bourbiaux is a statutory declaration under 28 U.S.C. 1746. The

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Examiner has confirmed, according to MPEP 602 II, "U.S. Patent and Trademark Office personnel are authorized to accept a statutory declaration under 28 U.S.C. 1746 filed in the U.S. Patent and Trademark Office in lieu of an "oath" or declaration under 35 U.S.C. 25 and 37 CFR 1.68, provided that the statutory declaration otherwise complies with the requirements of law". Accordingly, the Declaration meets the formal requirements.

Reasons for Allowance

4. The following is an Examiner's statement of reasons for allowance:

4-1. The closest prior art of record discloses:

(1) A method for determining the equivalent fracture permeability of a fracture network (Cacas et al., U.S. Patent 6,023,656);

(2) A method for determining large-scale representative hydraulic parameters of a fractured medium (Noetinger et al., U.S. Patent 6,094,619); and

(3) A method for simplifying the modeling of a geological porous medium crossed by an irregular network of fractures (Sarda et al., U.S. Patent 6,064,944).

4-2. Independent claim 7 is directed at a method for modeling fluid flows in a fractured multilayer porous medium as shown in Figure 5. This independent claim identifies the distinct feature of determining flows between each fracture mesh and the associated matrix volume in a pseudosteady state by using an image processing algorithm as described in paragraphs [0030] - [0034] of the second substitute specification. The closest prior art does not teach or reasonably suggest determining flows between each fracture mesh and the associated matrix volume in a

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pseudosteady state by using an image processing algorithm. Claim 7 and its dependent claims 9 and 12 are deemed allowable.

5. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

6. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Herng-der Day whose telephone number is (703) 305-5269. The Examiner can normally be reached on 9:00 - 17:30.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Jean Homere can be reached on (703) 308-6647. The fax phone numbers for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Herng-der Day *H.D.*
September 2, 2004

JEAN F. HOMERE
PRIMARY EXAMINER